

CLAIMS

We claim:

1 A method for presenting database query results through an audio user interface  
2 (AUI), comprising:

3 initiating a database query operation, said operation retrieving a plurality of  
4 database query result items from at least one database; and,  
5 presenting each said query result item through the AUI as each said query result  
6 item is found in said at least one database, said presentation occurring concurrently  
7 with said database query operation.

1 2. The method of claim 1, further comprising:

2 detecting a speech response through the AUI during said presentation, said  
3 speech response selecting said query result item presented through the AUI; and,  
4 responsive to said detection, terminating said database query operation.

1 3. The method of claim 2, further comprising:

2 detecting a command during said presentation to terminate said database query  
3 operation; and,  
4 responsive to said detection, terminating said database query operation.

1 4. The method of claim 3, wherein said command is a speech command.

1 5. The method of claim 1, further comprising:

2 inserting each result item in a data structure as each query result item is found;

1 6. The method of claim 5, wherein said presenting step comprises:

2 presenting each query result item contained in said data structure independently  
3 of but concurrently with said database query operation.

1 7. The method of claim 1, wherein said data structure is selected from the group  
2 consisting of a list, a stack, and a database.

1 8. The method of claim 1, wherein said AUI is a telephony interface.

1 9. A system for presenting database query results through an audio user interface  
2 (AUI) comprising:

3 a database manager for managing a database query operation on at least one  
4 database, said database query operation producing database query result items; and,

5 a dialog manager for managing the presentation of said database query result  
6 items through the AUI concurrently with said database query operation.

1 10. The system of claim 9, wherein said AUI comprises:

2 a text-to-speech processor for converting said database query result items into  
3 audible speech; and,

4 a speech recognition engine for converting speech input into text recognizable by  
5 said dialog manager.

1 11. The system of claim 10, wherein said AUI further comprises:

2 a barge-in facility.

1 12. The system of claim 9, further comprising:

2 a queue for storing database query result items from said database query  
3 operation; and,

4 a queue manager for managing the insertion and removal of database query  
5 items to and from said queue.

1 13. A machine readable storage having stored thereon a computer program for  
2 presenting database query results through an AUI, said computer program having a  
3 plurality of code sections executable by a machine for causing the machine to perform  
4 the steps of:

5 initiating a database query operation, said operation retrieving a plurality of  
6 database query result items from at least one database; and,

7 presenting each said query result item through the AUI as each said query result  
8 item is found in said at least one database, said presentation occurring concurrently  
9 with said database query operation.

1 14. The machine readable storage of claim 13, further comprising:

2 detecting a speech response through the AUI during said presentation, said  
3 speech response selecting said query result item presented through the AUI; and,  
4 responsive to said detection, terminating said database query operation.

1 15. The machine readable storage of claim 14, further comprising:

2 detecting a command during said presentation to terminate said database query  
3 operation; and,

4 responsive to said detection, terminating said database query operation.

1 16. The machine readable storage of claim 15, wherein said command is a speech  
2 command.

1 17. The machine readable storage of claim 13, further comprising:

2 inserting each result item in a data structure as each query result item is found;

1 18. The machine readable storage of claim 17, wherein said presenting step  
2 comprises:

3 presenting each query result item contained in said data structure independently  
4 of but concurrently with said database query operation.

1 19. The machine readable storage of claim 13, wherein said data structure is  
2 selected from the group consisting of a list, a stack, and a database.

1 20. The machine readable storage of claim 13, wherein said AUI is a telephony  
2 interface.